ABSTRACT

The present invention provides a method and device for creating an environment in a container that is suitable for growing anaerobic bacteria. The device utilizes exothermic chemistry to deplete oxygen and drive the decomposition of a bicarbonate present in the closed system. The decomposition of the bicarbonate results in the release of carbon dioxide. The result of this exothermic reaction and decomposition of the bicarbonate in the closed system results in a suitable oxygen depleted, carbon dioxide enriched atmospheric environment for the growth of anaerobic bacteria. The device is formed of an air permeable package containing a heat generating composition and a bicarbonate. The air-permeable package is contained within an outer wrap that forms an air barrier to the air-permeable package. To activate the heat generating composition, the outer wrap is removed to expose the air-permeable package to the oxygen within the container.